

### **REMARKS**

Claims 1, 2, 4-11 and 13-47 are currently pending. Claims 6-9, 10, 15-19, 22, 23, 25, 26, 29, 30, 38 and 39 have been amended for purposes of clarity and/or uniformity in claim language. Claim 44 has been amended to add a period at the end of the claim. Support for the amendments to claims 8, 9, 17 and 18 may be found, *inter alia*, at page 1, lines 12-13; page 8, line 30 to page 9, line 4; page 9, lines 18-22; page 10, lines 3-6 and lines 18-21; page 14, line 26 to page 15, line 3; and page 19, lines 17-19. Accordingly, no new matter is introduced by these amendments.

### **ELECTION/RESTRICTIONS**

The Examiner has required a restriction to one of the following inventions under 35 U.S.C. § 121:

- I. Claims 1-2, 4, 11, 13, and 27-44, drawn to a hybrid antigen comprising at least one antigenic domain of an infectious agent or tumor antigen and a binding domain that non-covalently binds to a heat shock protein, classified in class 530, subclass 350;
- II. Claims 5-7, 14-16, and 45, drawn to a method for inducing an immune response to an infectious agent, comprising administering a hybrid antigen and heat shock protein, classified in class 424, subclass 278.1;
- III. Claims 8-10, and 17-19, partially drawn to a method for treating an infectious disease comprising administering a hybrid antigen and heat shock protein, classified in class 424, subclass 278.1;
- IV. Claim 20, drawn to a peptide that is Asn Leu Leu Arg Leu Thr Gly Trp (SEQ ID NO: 417), Phe Tyr Gln Leu Ala Leu Thr Trp (SEQ ID NO: 186), or Arg Lys Leu Phe Phe Asn Leu Arg Trp (SEQ ID NO: 419), classified in class 530, subclass 300;
- V. Claims 21-23, and 46-47, drawn to a method for inducing an immune response to a tumor antigen, comprising administering a hybrid antigen and heat shock protein, classified in class 424, subclass 277.1; and
- VI. Claims 24-26, partially drawn to a method for treating cancer comprising administering a hybrid antigen and heat shock protein, classified in class 424, subclass 277.1

The Examiner contends that the inventions are distinct, each from the other.

Applicants hereby provisionally elect, with traverse, Group I, Claims 1-2, 4, 11, 13, and 27-44, drawn to a hybrid antigen comprising at least one antigenic domain of an infectious agent or tumor antigen and a binding domain that non-covalently binds to a heat shock protein.

In addition to election of one of the above inventions, the Examiner required election of one species from each of the following genera in the event that Group I is elected:

- Genus 1: the neoplastic diseases listed in claim 30;
- Genus 2: the infectious agents listed in claim 31;
- Genus 3: the types of bacteria listed in claim 33;
- Genus 4: the types of viruses listed in claim 35;
- Genus 5: the types of protozoa listed in claim 37; and
- Genus 6: the different hsp70 family members listed in claim 40.

Additionally, the Examiner required election of one of the following species of “peptide linkers” (actually heat shock protein binding domains) in the event that Group I or Group IV is elected:

- Species 1: Asn Leu Leu Arg Leu Thr Gly Trp (SEQ ID NO:417);
- Species 2: Phe Tyr Gln Leu Ala Leu Thr Trp (SEQ ID NO:186);
- Species 3: Arg Lys Leu Phe Phe Asn Leu Arg Trp (SEQ ID NO:419).

Applicants respectfully point out that, although the Examiner has erroneously identified the sequences as peptide linkers (see Office Action, page 5, second paragraph), the sequences are, as identified in claim 1, heat shock protein binding domains.

In order to be fully responsive, Applicants hereby provisionally elect with traverse from Genus 1, melanoma; from Genus 2, a virus; from Genus 3, *Streptococcus*; from Genus 4, herpes virus; from Genus 5, a malarial parasite; and from Genus 6, hsc70. With respect to the species of heat shock protein binding domain, Applicants hereby provisionally elect with traverse, Species 1: Asn Leu Leu Arg Leu Thr Gly Trp (SEQ ID NO:417).

Applicants believe that the claims within elected Group I that are readable upon the elected species are as follows:

- melanoma: Claims 1-2, 4, 11, 13, 27, 29-30, and 38-44;
- a virus: Claims 1-2, 4, 11, 13, 27, 28, 31, 34-35, and 38-44;

*Streptococcus*: Claims 1-2, 4, 11, 13, 27, 28, 31, 32-33, and 38-44;  
herpes virus: Claims 1-2, 4, 11, 13, 27, 28, 31, 34-35, and 38-44;  
a malarial parasite: Claims 1-2, 4, 11, 13, 27, 28, 31, and 36-44;  
hsc70: Claims 1-2, 4, 11, 13, and 27-44; and  
Species 1, Asn Leu Leu Arg Leu Thr Gly Trp (SEQ ID NO:417): Claims 1-2, 4, 11,  
13, and 27-44.


Upon the allowance of a product claim, Applicants request that any withdrawn process claims that depend from or otherwise include all the limitations of the allowable product claim be rejoined in accordance with the provisions of M.P.E.P. § 821.04. Presently, Applicants believe that the process claims 5-10, 14-19, 21-26 and 45-47 include all the limitations of a pending product claim within elected Group I.

Applicants fully reserve the right to prosecute the subject matter of the non-elected inventions in one or more related applications. In addition, Applicants retain the right to petition from the restriction requirement under 37 C.F.R. § 1.144.

Applicants respectfully request that the above remarks be entered and made of record in the file history of the instant application.

Respectfully submitted,

Date: July 14, 2006

 32,605  
Adriane M. Antler (Reg. No.)  
**JONES DAY**  
222 East 41<sup>st</sup> Street  
New York, NY 10017  
(212) 326-3939